	L #	Hits	Search Text	DBs
1	L1	0	"20020193027"	DERWENT
2	L2	1	5773146.pn.	DERWENT
3	FAMILY	1	1997-043014.NRAN.	DERWENT
4	L4	1	20020058140.pn.	DERWENT
5	FAMILY	1	2002-471214.NRAN.	DERWENT
6	L6	1	2002193027.pn.	DERWENT
7	L7	0	20020193027.pn.	DERWENT
8	L8	2	2001068755.pn.	DERWENT
9	L9	0	WO0001068755.PN.	DERWENT
10	L10	0	WO0001068755	DERWENT
11	L11	0	WO2001068755	DERWENT
12	L12	2	"2001068755"	DERWENT
13	L13	11617	powder\$2 adj coat\$4	USPAT; US-PGPUB
14	L16	70037	glass adj (fiber fibre filament strand yarn)	USPAT; US-PGPUB
15	L19	1097	13 and 16	USPAT; US-PGPUB
16	L22	16526	(organic inorganic composite hollow thermoplastic graphite talc mica zinc coppeer kaolinite) adj (particle particulate)	USPAT; US-PGPUB
17	L25	111	19 and 22	USPAT; US-PGPUB

DERWENT-ACC-NO: 1997-043014

DERWENT-WEEK: 200275

COPYRIGHT 1999 DERWENT INFORMATION LTD

TITLE: Aq. forming size compsn. for glass fibres - includes oleophobic starch, N-vinyl! amide! polymer, ester of wax component, emulsifying agent and cationic lubricant

INVENTOR: LAWTON, E L; WU, X; WOO, S A

PATENT-ASSIGNEE: PPG IND INC[PITT], PPG

IND OHIO INC[PITT]

PRIORITY-DATA: 1995US-0463909 (June 5, 1995)

PATENT-FAMILY:

PUB-DATE PUB-NO PAGES MAIN-IPC LANGUAGE CN 1191523 A August 26, 1998 C03C 025/02 000 N/ADecember 12, 1996 WO 9639364 A1 C03C 025/02  $\mathbf{E}$ 045 June 30, 1998 US 5773146 A 000 B32B 009/00 N/A

JP 10510800 W October 20, 1998 N/A 040 C03C 025/02

KR 99022426 A March 25, 1999 N/A 000 C03C 025/02

N/A 000 C03C 025/02 JP 3065668 B2 July 17, 2000

N/A 017 C03C 025/10 KR 245067 B1 February 15, 2000 DESIGNATED-STATES: CA CN JP KR AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT S F.

CITED-DOCUMENTS: EP 424701; US 4296173; WO 9404731; WO 9425522

## APPLICATION-DATA:

PUB-NO APPL-DESCRIPTOR APPL-DATE APPL-NO CN 1191523A N/A May 30, 1996 1996CN-0195721 WO 9639364A1 N/A May 30, 1996 1996WO-US08071 US 5773146A N/A June 5, 1995 1995US-0463909 N/AJP 10510800W May 30, 1996 -1996WO-US08071 JP 10510800W N/A May 30, 1996 1997JP-0500862 Based on JP 10510800W N/A WO 9639364 KR 99022426A N/A May 30, 1996 1996WO-US08071 KR 99022426A N/A December 5, 1997 1997KR-0708906 KR 99022426A Based on WO 9639364 N/A JP 3065668B2 N/A May 30, 1996 1996WO-US08071 JP 3065668B2 N/A May 30, 1996 1997JP-0500862 Previous Publ. JP 3065668B2

JP 10510800 N/A
JP 3065668B2 Based on
WO 9639364 N/A
KR 245067B1 N/A
1996WO-US08071 May 30, 1996
KR 245067B1 N/A
1997KR-0708906 December 5, 1997

INT-CL (IPC): B32B009/00; C03C025/02;

C03C025/10; D03D015/12; D06M015/11; D06M015/356

ABSTRACTED-PUB-NO: US 5773146A BASIC-ABSTRACT: An aq. forming size compsn. for treating glass fibres comprises (a) an oleophobic starch; (b) a film-forming material which is a N-vinylamide polymer; (c) a wax component comprising an ester formed by reacting (1) a monocarboxylic acid and (2) a monohydric alcohol; (d) an emulsifying agent for the wax component; and (e) a cationic lubricant different from the wax component; the compsn. is free of (1) oleophilic starches, (2) polyolefin emulsions, and (3) preservatives selected from organometallic cpds., formaldehydes and their derivs.

Also claimed are (i) a fibre strand comprising fibres deposited with the dried residue of the above aq. forming size compsn.; and (ii) a woven fabric having at least one of the warp and the weft comprising the above fibre strand.

USES - The glass fibre strands are used as cloth for printed circuit boards, knits for orthopaedics and overwrap reinforcements for optical fibre cables.

ADVANTAGES - The sized glass fibre strands have minimum fuzz and halos, low broken filaments, low strand tension, adequate wet-out in slashing and high fliability, low insertion time in weaving and can withstand a wide variety of processing operations.

ABSTRACTED-PUB-NO: WO 9639364A EOUIVALENT-ABSTRACTS: An ag. forming size compsn. for treating glass fibres comprises (a) an oleophobic starch; (b) a film-forming material which is a N-vinylamide polymer; (c) a wax component comprising an ester formed by reacting (1) a monocarboxylic acid and (2) a monohydric alcohol; (d) an emulsifying agent for the wax component; and (e) a cationic lubricant different from the wax component; the compsn. is free of (1) oleophilic starches, (2) polyolefin emulsions, and (3) preservatives selected from organometallic cpds., formaldehydes and their derivs.

Also claimed are (i) a fibre strand comprising fibres deposited with the dried residue of the above aq. forming size compsn.; and (ii) a woven fabric having at least one of the warp and the weft comprising the above fibre strand.

USES - The glass fibre strands are used as cloth for printed circuit boards, knits for orthopaedics and overwrap reinforcements for optical fibre cables.

ADVANTAGES - The sized glass fibre strands have minimum fuzz and halos, low broken filaments, low strand tension, adequate wet-out in slashing and high fliability, low insertion time in weaving and can withstand a wide variety of processing operations.

CHOSEN-DRAWING: Dwg.0/1

## TITLE-TERMS:

AQUEOUS FORMING SIZE COMPOSITION GLASS FIBRE OLEOPHOBIC STARCH N POLYVINYL POLYAMIDE POLYMER ESTER WAX COMPONENT EMULSION AGENT CATION LUBRICATE

DERWENT-CLASS: A11 A14 A85 A87 D22 F03 F06 L01 L03 P73

CPI-CODES: A03-A; A04-D; A04-G01E; A07-B03; A08-M03; A08-S05; A12-G; D09-C04B; F01-D09B; F02-B02; F03-C; F03-D; F04-E04; F04-G01; L01-F03A; L03-H04E;

## ENHANCED-POLYMER-INDEXING:

Polymer Index [1.1]

018 ; R01863\*R D01 D11 D10 D23 D22 D31

D42 D50 D76 D86 F24 F29 F26

F34 H0293 P0599 G3623 ; S9999 S1025

S1014 ; M9999 M2073

```
Polymer Index [1.2]
    018 ; ND01 ; Q9999 Q7216 Q7114 ; K9676*R
; K9530 K9483 ; Q9999 Q7454
    07330 ; Q9999 Q8344 Q8264 ; Q9999
Q7987*R
Polymer Index [1.3]
    018 ; B9999 B3496 B3485 B3372 ; B9999
B3554*R
Polymer Index [1.4]
    018 ; D01 F83 ; A999 A033
Polymer Index [1.5]
    018 ; D01 D11 D10 D50 D63 D95 F89 F41 ;
A999 A340*R
Polymer Index [1.6]
    018 ; D01 D61*R F16 F35*R ; D01 D23 D22
D31 D75 D50 F09 F07 D11
    D10 ; A999 A340*R ; K9643 K9621
Polymer Index [1.7]
    018 ; A999 A340*R ; K9325
Polymer Index [1.8]
    018 ; A999 A635 A624 A566
Polymer Index [2.1]
    018 ; G0635 G0022 D01 D12 D10 D23 D22
D31 D41 D51 D53 D58 D75 D86
    F71 ; H0000 ; H0011*R
Polymer Index [2.2]
    018 ; G0806 G0022 D01 D51 D53 D12 D10
D23 D22 D31 D76 D41 D58 D87
    F71 ; H0000 ; H0011*R
Polymer Index [2.3]
    018 ; G0657 G0022 D01 D12 D10 D23 D22
D31 D41 D51 D53 D58 D77 D88
    F71 ; H0000 ; H0011*R
Polymer Index [2.4]
    018 ; G0806 G0022 D01 D51 D53 D11 D10
D12 D23 D22 D31 D75 D41 D58
```